Experimental Cell Research

EDITOR-IN-CHIEF

N. Ringertz

ASSOCIATE EDITOR
FOR NORTH AMERICA

R. Baserga

Volume 228, 1996

Academic Press
San Diego New York Boston
London Sydney Tokyo Toronto

http://www.apnet.com

Copyright © 1996 by Academic Press, Inc.
All Rights Reserved

No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopy, recording, or any information storage and retrieval system, without permission in writing from the copyright owner.

The appearance of the code at the bottom of the first page of an article in this journal indicates the copyright owner's consent that copies of the article may be made for personal or internal use, or for the personal or internal use of specific clients. This consent is given on the condition, however, that the copier pay the stated per copy fee through the Copyright Clearance Center, Inc. (222 Rosewood Drive, Danvers, Massachusetts 01923), for copying beyond that permitted by Sections 107 or 108 of the U.S. Copyright Law. This consent does not extend to other kinds of copying, such as copying for general distribution, for advertising or promotional purposes, for creating new collective works, or for resale. Copy fees for pre-1996 articles are as shown on the article title page; if no fee code appears on the title page, the copy fee is the same as for current articles.

0014-4827/96 $18.00

MADE IN THE UNITED STATES OF AMERICA

This journal is printed on acid-free paper.

Contents of Volume 228

Number 1, October 10, 1996

YOSHIFUMI YOKOTA AND HIROAKI OHKUBO. 9-*cis*-Retinoid Acid Induces Neuronal Differentiation of Retinoic Acid-Nonresponsive Embryonal Carcinoma Cells 1

BÉNÉDICTE GÉRARD, NICOLETTE FARMAN, KISHOR B. RAJA, EMMANUEL EUGÈNE, BERNARD GRANDCHAMP, AND CAROLE BEAUMONT. Expression of H and L Ferritin mRNAs in Mouse Small Intestine 8

MIREIA DALMAU, MANEL JOAQUIN, TOSHIKAZU NAKAMURA, RAMON BARTRONS, AND JOAN GIL. Nitric Oxide Inhibits DNA Synthesis and Induces Activation of Poly(ADP-Ribose) Polymerase in Cultured Rat Hepatocytes 14

J. J. LATIMER, M. L. HULTNER, J. E. CLEAVER, AND R. A. PEDERSEN. Elevated DNA Excision Repair Capacity in the Extraembryonic Mesoderm of the Midgestation Mouse Embryo 19

ARSI BROBERG AND JYRKI HEINO. Integrin $\alpha 2\beta 1$-Dependent Contraction of Floating Collagen Gels and Induction of Collagenase Are Inhibited by Tyrosine Kinase Inhibitors 29

THOMAS F. LINSENMAYER, FRANK IGOE, EILEEN GIBNEY, MARION K. GORDON, AND DAVID E. BIRK. Positive Regulation of Corneal Type V Collagen mRNA: Analysis by Chicken–Human Heterokaryon Formation 36

LINDA J. METHENY AND GARY R. SKUSE. NF1 mRNA Isoform Expression in PC12 Cells: Modulation by Extrinsic Factors 44

M. TEIFEL AND P. FRIEDL. Establishment of the Permanent Microvascular Endothelial Cell Line PBMEC/C1-2 from Porcine Brains 50

ANDREA G. BODNAR, NAM W. KIM, RITA B. EFFROS, AND CHOY-PIK CHIU. Mechanism of Telomerase Induction during T Cell Activation 58

STEVEN GRANT, AMY J. TURNER, ALEX J. FREEMERMAN, ZHILIANG WANG, LORA KRAMER, AND W. DAVID JARVIS. Modulation of Protein Kinase C Activity and Calcium-Sensitive Isoform Expression in Human Myeloid Leukemia Cells by Bryostatin 1: Relationship to Differentiation and Ara-C-Induced Apoptosis 65

MICHAEL J. WARBURTON, SINCLAIR R. DUNDAS, BARRY A. GUSTERSON, AND MICHAEL J. O'HARE. Regulation of Urokinase-Type Plasminogen Activator Production by Rat Mammary Myoepithelial Cells 76

VAHIDEH LAMIAN, GILLIAN M. SMALL, AND CARL M. FELDHERR. Evidence for the Existence of a Novel Mechanism for the Nuclear Import of Hsc70 84

TANAPAT PALAGA, TAKAO KATAOKA, JE-TAE WOO, AND KAZUO NAGAI. Suppression of Apoptotic Cell Death of IL-3-Dependent Cell Lines by ER/SR Ca^{2+}-ATPase Inhibitors upon IL-3 Deprivation 92

BARBARA L. RICHARD, MOTOYOSHI NOMIZU, YOSHIHIKO YAMADA, AND HYNDA K. KLEINMAN. Identification of Synthetic Peptides Derived from Laminin $\alpha 1$ and $\alpha 2$ Chains with Cell Type Specificity for Neurite Outgrowth 98

GRISELDIS HÜBNER AND SABINE WERNER. Serum Growth Factors and Proinflammatory Cytokines Are Potent Inducers of Activin Expression in Cultured Fibroblasts and Keratinocytes 106

A. DAMJI, L. WESTON, AND D. M. BRUNETTE. Directed Confrontations between Fibroblasts and Epithelial Cells on Micromachined Grooved Substrata 114

MARC VANDELAER, MARC THIRY, AND GUY GOESSENS. Isolation of Nucleoli from ELT Cells: A Quick New Method That Preserves Morphological Integrity and High Transcriptional Activity 125

ERIC W. HOWARD, RICHARD BENTON, JOAN AHERN-MOORE, AND JAMES J. TOMASEK. Cellular Contraction of Collagen Lattices Is Inhibited by Nonenzymatic Glycation 132

SHERRY M. WANG, PAUL D. PHILLIPS, FELIPE SIERRA, AND VINCENT J. CRISTOFALO. Altered Expression of the *Twist* Gene in Young versus Senescent Human Diploid Fibroblasts 138

NETA ILAN, ITAMAR BARASH, MOSHE RAIKHINSTEIN, ALEXANDER FAERMAN, AND MOSHE SHANI. β-Lactoglobulin/Human Serum Albumin Fusion Genes Do Not Respond Accurately to Signals from the Extracellular Matrix in Mammary Epithelial Cells from Transgenic Mice 146

Short Notes

MATTHEW G. FURY AND GARY W. ZIEVE. U6 snRNA Maturation and Stability 160

J. A. COSTOYA, A. VIDAL, M. GARCÍA-BARROS, V. ARCE, AND J. DEVESA. Expression of the Human Growth Hormone Normal Gene (hGH-N) in Proliferating and Differentiated HL-60 Cells 164

JAMIE FITZGERALD AND MILLIE HUGHES-FULFORD. Gravitational Loading of a Simulated Launch Alters mRNA Expression in Osteoblasts 168

Number 2, Number 2, November 1, 1996

STEFANIA CIGLIANO, PAOLO REMONDELLI, LILIANA MINICHIELLO, MARIA CRISTINA MELLONE, GIANLUCA MARTIRE, STEFANO BONATTI, AND ARTURO LEONE. Analysis of Metal-Regulated Metallothionein and Heat Shock Gene Expression in HeLa-Derived Cadmium-Resistant Cells 173

MANFRED ALSHEIMER AND RICARDO BENAVENTE. Change of Karyoskeleton during Mammalian Spermatogenesis: Expression Pattern of Nuclear Lamin C2 and Its Regulation 181

JULIA LANGE, KARSTEN SCHLIEPS, KLAUS LANGE, URSULA BRANDT, AND ELISABETH KNOLL-KÖHLER. Detection of the ATP-Dependent Nonmitochondrial Calcium Store in a Cell Surface-Derived Vesicle Fraction from Isolated Rat Hepatocytes 189

WOLFGANG HAGMANN, XIANG GAO, JOSZEF TIMAR, YONG Q. CHEN, ANJA-ROSE STROHMAIER, CHRIS FAHRENKOPF, DAVID KAGAWA, MIU LEE, ALEX ZACHAREK, AND KENNETH V. HONN. 12-Lipoxygenase in A431 Cells: Genetic Identity, Modulation of Expression, and Intracellular Localization 197

YOUNG-CHAU LIU, SHAN-CHUN CHEN, CHUNGMING CHANG, CHUEN-MIIN LEU, AND CHENG-PO HU. Platelet-Derived Growth Factor Is an Autocrine Stimulator for the Growth and Survival of Human Esophageal Carcinoma Cell Lines 206

VINCENZO CIMINI. Galanin Inhibits ACTH Release *in Vitro* and Can Be Demonstrated Immunocytochemically in Dispersed Corticotrophs 212

WARREN KNUDSON, DEAN J. AGUIAR, QIANG HUA, AND CHERYL B. KNUDSON. CD44-Anchored Hyaluronan-Rich Pericellular Matrices: An Ultrastructural and Biochemical Analysis 216

VLADIMIR N. PARFENOV, DONNA S. DAVIS, GALINA N. POCHUKALINA, CLARE E. SAMPLE, AND KURUGANTI G. MURTI. Nuclear Bodies of Stage 6 Oocytes of *Rana temporaria* Contain Nucleolar and Coiled Body Proteins 229

BRUCE GOLDMAN, ANNA MACH, AND JOHN WURZEL. Epidermal Growth Factor Promotes a Cardiomyoblastic Phenotype in Human Fetal Cardiac Myocytes 237

BIRGIT M. SCHAEFER, JEANNETTE REINARTZ, MICHAEL J. BECHTEL, STEFAN INNDORF, EKKEHARD LANG, AND MICHAEL D. KRAMER. Dispase-Mediated Basal Detachment of Cultured Keratinocytes Induces Urokinase-type Plasminogen Activator (uPA) and Its Receptor (uPA-R, CD87) 246

XIAO-DI HUANG, MAGDA HORACKOVA, AND MILTON L. PRESSLER. Changes in the Expression and Distribution of Connexin 43 in Isolated Cultured Adult Guinea Pig Cardiomyocytes 254

SCOTT E. BAKER, ANTHONY P. DIPASQUALE, E. LEE STOCK, VITO QUARANTA, MARK FITCHMUN, AND JONATHAN C. R. JONES. Morphogenetic Effects of Soluble Laminin-5 on Cultured Epithelial Cells and Tissue Explants 262

GUANGYUAN ZENG, HEATHER M. MCCUE, LAURA MASTRANGELO, AND ALBERT J. T. MILLIS. Endogenous TGF-β Activity Is Modified during Cellular Aging: Effects on Metalloproteinase and TIMP-1 Expression 271

JOHANNES TESFAIGZI AND DON M. CARLSON. Cell Cycle-Specific Expression of G_0SPR1 in Chinese Hamster Ovary Cells 277

JANE C. ATKINSON, MARTIN RÜHL, JÜRGEN BECKER, RENATE ACKERMANN, AND DETLEF SCHUPPAN. Collagen VI Regulates Normal and Transformed Mesenchymal Cell Proliferation *in Vitro* 283

GABRIELLA BONELLI, MARIA CRISTINA SACCHI, GIUSEPPE BARBIERO, FEDERICA DURANTI, GIOVANNA GOGLIO, LUDOVICA VERDUN DI CANTOGNO, JOSEPH SALVATORE AMENTA, MAURO PIACENTINI, CARLO TACCHETTI, AND FRANCESCO MARIA BACCINO. Apoptosis of L929 Cells by Etoposide: A Quantitative and Kinetic Approach 292

TUOMO ALANKO, JUKKA TIENARI, EERO LEHTONEN, AND OLLI SAKSELA. FGF-2 Inhibits Apoptosis in Human Teratocarcinoma Cells during Differentiation on Collagen Substratum 306

STEPHEN BRITLAND, HYWEL MORGAN, BEATA WOJIAK-STODART, MATHIS RIEHLE, ADAM CURTIS, AND CHRIS WILKINSON. Synergistic and Hierarchical Adhesive and Topographic Guidance of BHK Cells 313

IAN R. ELLIS AND SETH L. SCHOR. Differential Effects of TGF-β1 on Hyaluronan Synthesis by Fetal and Adult Skin Fibroblasts: Implications for Cell Migration and Wound Healing 326

JEANNETTE REINARTZ, MICHAEL J. BECHTEL, AND MICHAEL D. KRAMER. Tumor Necrosis Factor-α-Induced Apoptosis in a Human Keratinocyte Cell Line (HaCaT) Is Counteracted by Transforming Growth Factor-α 334

Short Note

TAKAHO A. ENDO, TOSHIHIDE KOBAYASHI, AND KAZUO OHKI. A Chinese Hamster Ovary Cell Mutant Resistant to Phosphatidylserine Is Defective in Transbilayer Movement of Cell Surface Phosphatidylserine 341

Author Index for Volume 228 347

NOTICE

The Subject Index for Volume 228 will appear in the December 15, 1996, issue as part of a cumulative index for the year 1996.